MORROW RENEWABLES

September 4, 2018

Attn: The Honorable John Shimkus

From: Luke Morrow

Reference: Additional Questions

Chairman Shimkus:

Below are the answers to the questions posed in your August 21 letter.

1. Is there a potential future scenario where Advanced Biofuels could successfully compete and participate in the market without the Renewable Fuel Standard?

Thank you Mr. Chairman for the question.

Morrow Renewables is a renewable natural gas (RNG) company and member of the Coalition for Renewable Natural Gas. RNG qualifies as an advanced or cellulosic biofuel under the Renewable Fuel Standard (RFS), depending on the originating feedstock of the gas. I am happy to answer your question as it relates to RNG.

The RNG industry takes untreated biogas captured from landfills, wastewater facilities and anaerobic digesters and refines it to meet the fuel quality standards of geologic natural gas. The resulting RNG is fully fungible in existing pipeline infrastructure and can be used in natural gas vehicles without any restrictions.

Natural gas is a commodity, and like any commodity, its price fluctuates based on a host of factors that impact the marketplace. Changes in supply, global demand or government policy can all have an impact on the price of natural gas.

Currently, natural gas prices are quite low. The low price of natural gas is helping to spur adoption of natural gas vehicles, particularly in heavy-duty applications, and natural gas fueling infrastructure. Natural gas currently trades near $2.85 per mmbtu. By comparison, oil is currently priced around $68.42 per barrel. Since there are 5.1 mmbtu in a barrel of oil, this equates to oil at $13.42 per mmbtu. NGVAmerica[1] estimates that the payback period for a natural gas vehicle is 18-24 months due to lower fuel and maintenance costs. Innovative

[1] NGV America is a national organization that represents more than 200 companies, environmental groups, and government organizations interested in the promotion and use of natural gas and biomethane as transportation fuels.

private sector companies are aggressively pushing to expand natural gas fueling infrastructure nationwide, which will help expand market penetration for natural gas vehicles.

The RFS, in its current form, was enacted as part of *the Energy Independence and Security Act of 2007* (EISA)(P.L. 110-140), yet RNG has only qualified as cellulosic biofuel since 2014. In this limited time, RNG production for use as transportation fuel grew by more than 620%. The ability to generate a RIN helps make RNG price competitive as a transportation fuel in the growing marketplace for natural gas vehicles, even in a scenario where natural gas prices are near historic lows.

Natural gas markets are dynamic, and over time, changes in marketplace dynamics will impact the price of natural gas. Predicting the future performance of commodity markets is an uncertain proposition, but it is fair to observe that increased global demand for natural gas or changes in government policy have the potential to provide upward pressure on natural gas prices. This combined with increased efficiencies we are witnessing in the RNG industry will make RNG more competitive in the marketplace.

A stable RFS policy helps attract the private sector investment and yields efficiencies that will enhance the RNG industry's ability to produce transportation fuel from waste sources such as landfills, wastewater facilities and anaerobic digesters at lower cost. This is an outcome consistent with the underlying environmental and energy policy goals of the RFS program.

2. <u>What are your views on the EPA's 2016 proposed Renewables Enhancement and Growth Support (REGS) Rule?</u>

Thank you Chairman Shimkus for this question regarding the EPA's proposed REGS rule.

As you know, the proposed REGS rule is broad in scope and addresses a host of issues pertaining to the RFS program. That noted, there is one component of the proposed rule that I would like to highlight for the subcommittee.

Morrow Renewables and the RNG Coalition are concerned about the EPA's proposal for Section 80.1478 "Requirements for biogas producers." The proposed language calls for biogas producers whose biogas is used to produce CNG/LNG to register either as a renewable fuel producer or a bio-intermediate producer. The EPA further proposes, in Section VII.K of the proposed regulation, that the biogas producer will be defined as "the owner of the landfill, municipal wastewater treatment facility digester, agricultural digester or separate MSW digester that produces biogas used to produce… CNG/LNG."

This proposed definition of "biogas producer" and registration requirement could have serious adverse consequences on the RNG industry as it is currently structured. In the RNG industry,

the entity that produces vehicle fuel quality RNG from a raw biogas resource is rarely if ever the same entity that owns the raw biogas resource (e.g. landfill, digester, sewage lagoon). For example, landfill owners generally contract with third party renewable energy companies that collect the raw biogas generated by the landfill and process it into a pipeline or vehicle fuel quality energy product. Generally, the landfill owner is agnostic about the market that the RNG product is sold into and is paid a royalty by the renewable natural gas production company.

Requiring the landfill, wastewater treatment facility, or digester owner to register under the RFS may prove impossible. For such owner, their business is collecting and disposing of trash, or cleaning wastewater, or farming – and the renewable natural gas production facilities located at their site are a very small consideration. The site owner is unlikely to agree to register and accept liability under the RFS, particularly when they have no control or insight into the downstream sale of the RNG product by the RNG producer.

This proposal would create new liabilities and significant burdens on municipalities, landfill owners, farmers, and small businesses that have previously only contracted to allow an RNG developer onto their property for collection and processing of biogas. Such an interpretation would be tantamount to requiring every farmer that grows an ear of corn for eventual processing to ethanol to register under the program. It is simply not practical or prudent.

Please feel free to contact me with any other questions.

Thank you,

Luke Morrow

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